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Contribution by indigenous peoples

Water, sanitation and human settlements*

Contents

		Paragraphs	*Page*
I.	Introduction	1–6	3
II.	Indigenous peoples and human settlements	7–22	4
III.	Indigenous peoples and water	23–39	9
IV.	Indigenous peoples and sanitation	40–42	13
V.	International water policy	43–50	14
VI.	Conclusions and recommendations	51–98	16

* Prepared by the Tebtebba Foundation (Indigenous Peoples' International Centre for Policy Research and Education) and the Indigenous Environmental Network in consultation with indigenous peoples' organizations.

I. Introduction

1. Indigenous peoples welcome the implementation review on the thematic issues of human settlements, water and sanitation at the twelfth session of the Commission on Sustainable Development, with a focus on identifying constraints, obstacles, successes and lessons learned in the implementation process. The year 2004 coincides with the culmination of the International Decade of the World's Indigenous People, and this review will contribute to a deeper understanding about the policies, approaches and actions which affect the sustainable development of indigenous peoples.

2. Ten years after Rio, the World Summit on Sustainable Development strongly reaffirmed commitments to the Rio principles, the full implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the Johannesburg Plan of Implementation. In the Johannesburg Declaration on Sustainable Development, the world's political leaders stated: "We reaffirm the vital role of indigenous peoples in sustainable development."

3. The relevant commitments made in chapter 26 of Agenda 21 on strengthening the role of indigenous people and their communities, states: In view of the interrelationship between the natural environment and its sustainable development and the cultural, social, economic and physical well-being of indigenous people, national and international efforts to implement environmentally sound and sustainable development should recognize, accommodate, promote and strengthen the role of indigenous people and their communities.

4. Human settlements, water and sanitation cover a complex of social and ecological interrelationships, between peoples and with the Earth. Human settlements are cultural homes within our larger ecological home, the Earth. Water is a basic element of this planet and therefore of life. Sanitation is critical to maintaining the health, well-being and life of peoples and nature.

5. The present background paper on indigenous peoples, human settlements, water and sanitation, prepared for the Commission on Sustainable Development at its twelfth session, covers this social and ecological interrelationship, underlining that diversity of human settlements is a central criterion for monitoring progress in the implementation of sustainable development. It looks at the impacts of urbanization on indigenous peoples' human settlements in both the rural and urban settings.

6. Sufficient attention must be paid at this meeting to reviewing the overall balance and practice of integrated land use planning and resource management to ensure that the long-term diversity and health of ecosystems and human settlements are maintained, including the well-being of indigenous peoples. The approaches, policies and actions adopted by the international community on these important matters, will have long-term bearing on the health and well-being of peoples and the planet.

II. Indigenous peoples and human settlements

Box 1

The overall human settlement objective is to improve the social, economic and environmental quality of human settlements and the living and working environments of all people, in particular the urban and rural poor.

Source: Agenda 21, chap. 7.

Diversity of human settlements — the Earth is our home

7. The Commission's review of implementation towards sustainable human settlements must start from an affirmation of the diversity of human settlements that have existed historically and in contemporary times: from small land-based communities to the large conurbations.

8. For 99 per cent of the history of human settlements, cities were one option, one way of life among a diversity of human settlements. However, in the most recent 1 per cent of human history, in the latter part of the twentieth century and the start of the twenty-first century, for the first time a majority of the human population will be living in urban areas. This transformation, which is closely linked to globalization, has magnified the reach of the consumption and production of cities to encompass the diverse lands, resources and human settlements around the world. One form of human settlement, the built environment, organized through States and the values of the market are encroaching and overwhelming other human settlements organized around local resources, institutions and values. Indigenous peoples' territories are being consumed by urban areas, destroying indigenous and local communities' own self-determination and sustainable development.

9. Most indigenous peoples today still live in human settlements outside modern cities and industrial centres. Indigenous communities embody historical relationships to lands, waters and forests and their livelihoods and economies are adapted to these diverse ecosystems such as forests, mountains, deserts, tundra or wetlands where they live. Human settlements are cultural homes within our larger ecological home, the Earth. In some countries with very high urban concentrations (e.g., New Zealand, Chile, the United States of America and Canada) of over 50-70 per cent, the number of indigenous persons living in cities reflects this trend.

10. Human settlements among indigenous peoples are characteristically self-sustaining communities that provide for peoples' social, economic, religious and political needs, and space where peoples are not separate from their land, waters and forests. This is a far cry from the urban concept of settlements as simply infrastructures and facilities. Women refugees in Mindanao, the Philippines, criticized the Government's resettlement project, saying that their concept of a home is not just the "four-cornered building ... A home has a place for growing vegetables and space for raising chickens and hogs to supplement the family's income. If we built only physical structures, we failed to address the woman's need to be productive within her own domain. The space must also be one where she has the

opportunity for livelihood, thus contributing to her empowerment as a productive member of society" (www.womenwagingpeace.net/content/articles/0074a.html).

11. Pastoralists are mobile indigenous peoples, who use mobility as a settlement and livelihood strategy, while conserving and protecting fragile environments. Some of their practices include enforcing traditional grazing policies where they restrict grazing in some parts of the land until it has rejuvenated, and fencing off watering points to prevent water pollution. Their settlement patterns are not fixed and permanent. They seasonally move from place to place with their livestock, including across national borders, but with the agreement of related pastoralist communities. Governments have pursued policies to settle and sedentarize pastoralists, but the land provided is often inadequate to maintain their livestock and livelihoods, and can be harmful to the environment.

12. For indigenous hunter-gatherers, nomads, swidden farmers, reindeer herders and pastoralists, a continuing relationship and access to their natural homelands provides livelihood and food security through patterns of human settlement which are appropriate to the natural environment. Their loss of land through government expropriation and priorities for modernization have severely impoverished them. Government policies pursuing sedentarization, forced resettlement or restricted access to customary lands are violating their rights to livelihoods and appropriate housing.

Displacement and urbanization

13. From the onset of colonization in many regions of indigenous peoples' lands and islands, human settlement and migration of colonizers and non-indigenous populations have and are continuing to be destructive to the original habitants. With colonization often comes policies of militarization, removal of indigenous peoples, introduction of foreign diseases and imposition of foreign governmental structures that don't recognize the inherent rights of the indigenous to their lands, waters and self-determination and to practise their culture and spiritual ceremonies. Today, this threat continues to be significant for indigenous peoples in voluntary isolation, for example in some forests in the Amazon basin. Indigenous peoples continue to suffer forcible and violent mass displacement through development projects that have the effect, if not the intent, of forcible assimilation.

14. Whereas urbanization and modernization has resulted in economic and material improvements for many, the overwhelming experience of indigenous peoples has been one of impoverishment in both rural and urban areas. The incorporation and encapsulation of indigenous peoples within modern States through colonization and modernization has rendered their land and resources open to expropriation for use by others. Characteristically, this has happened through the settlement of indigenous territories by colonists, through the operations of extractive industries, through the construction of large infrastructure projects, the proclamation of protected areas, and more recently as sites for industrial expansion and as dumping areas for wastes and toxics from industrial processes.

15. Many of these projects directly undermine the goal of poverty alleviation and providing housing for all, by resulting in the forced displacement of many indigenous communities, leading to their deep impoverishment in traditional homelands and contributing to urban drift. Caused by the loss of lands and

territories, and by negative effects of free trade agreements that have created mechanisms of privatization of indigenous communal lands, many indigenous peoples are forced to migrate, as an economic need, to urban areas. Within these pockets of urban cities, indigenous peoples join human settlements of poverty to survive without the support of family, community and culture.

16. In many regions, urban sprawl and population growth are infringing into the traditional homelands of indigenous peoples with no local or national mechanism to protect the rights of indigenous peoples. Human settlements of various class and caste systems compete with indigenous peoples over scarce land and water, creating political and legal struggle over land and water rights.

Involuntary displacement

17. Indigenous peoples' poverty is directly linked to dispossession from their lands, which are essential for their security, livelihoods and well-being. Material impoverishment is also associated with language and cultural loss.

Box 2
Cultural poverty: a Dayak perspective

These seven principles summarize the way in which the Dayak achieve their ideal of life, based on their cultural values.

1. Sustainability (biodiversity) versus productivity (monoculture)
2. Collectivity (cooperation) versus individuality (competition)
3. Naturality (organic) versus engineered (inorganic)
4. Spirituality (rituality) versus rationality (scientific)
5. Process (effectiveness) versus result (efficiency)
6. Subsistence (domesticity) versus commerciality (market)
7. Customary law (locality) versus State law (global)

Failure to achieve these ideals is believed to result in *barau* (Jalai Dayak): a situation when nature fails to function normally, and thus results in chaos. *Barau* is a result of Adat transgression, a broken relationship with nature. "Poverty" for the Dayak is linked directly with failure to exercise the Adat that governs the way in which the people should live.

Source: John Bamba, "Seven Fortunes vs. Seven Calamities".

18. In the cities, indigenous peoples suffer major disparities in all measurable areas such as lower wages, lack of employment, skills and education, poor health, housing and criminal convictions. Many indigenous city dwellers maintain reciprocal relationships with family and their homelands and build associations and relations as a form of finding their own space and sociocultural continuum outside

of their traditional homes — a coping mechanism that helps minimize conflicts brought about by the drastic change and demands of urbanization.

19. The livelihood and employment strategies pursued by indigenous urban dwellers build on traditional skills; but many end up in low-paying work. Some examples are marketing of handicrafts; trading of traditional herbs and remedies; as construction workers by Igorot men skilled in building rice terraces and Masai males serving as security guards reflecting their traditional role as warriors in East Africa. Others are also exploited as tourist attractions in tourism establishments. Many have livelihoods as petty traders, menial and domestic workers and low-paid service workers, as well as being a source of cheap labour in the city.

20. On the other hand, indigenous urban dwellers have raised the visibility of indigenous issues through advocacy and public actions in the cities.

Sustainable land-use planning and management — demarcation and respect for land rights of indigenous peoples

21. Within the action plan on human settlements, the implementation of integrated land use planning and natural resource base management strategies continues to be weak, with slow progress being made in the mapping and demarcation of indigenous peoples' lands and territories towards security of tenure and legal protection. Indigenous peoples give high priority to this activity, which is critical to the substance of indigenous peoples' self-determination and sustainable development.

22. For as long as indigenous peoples are denied security over the lands, waters and resources they have traditionally occupied and used, their contributions and benefits to sustainable development remain unfulfilled. Weak or absent legal protection for indigenous peoples' rights in the development process, including in the planning and implementation of water, sanitation and other infrastructure projects for human settlements, is the outstanding obstacle to be addressed.

Box 3
Mapping for land rights: indigenous land demarcation

In the past 25 years, the constitutions of a large number of countries, notably those in Latin America, have been revised to accept the presence of indigenous peoples as integral elements of their multicultural and pluri-ethnic societies. Constitutions and laws have been passed which provide for the recognition of indigenous peoples' rights in land. However, progress towards actual recognition of these rights in practice has been slow, mainly because conflicting laws, policies and economic interests have been given priority in land use planning and the allocation of rights.

One of the most significant developments that has taken place during this period has been the proactive initiatives undertaken by Indigenous peoples and supportive non-governmental organizations to map and demarcate their own lands. Using a wide variety of technologies and methods, indigenous communities from the Arctic to the Amazon and from the Americas to Papua New Guinea have been making their

own maps of their lands as a way of confronting the imposed land use plans of Government and establishing the complexity and validity of their own visions of land. Techniques used have varied widely, from simple sketch mapping and community level discussion groups, to highly technical surveys involving qualified cartographers and registered surveyors.

Some of the most progressive techniques involve training community members in the use of global positioning system devices so that they are able to precisely "waymark" locations of cultural, economic and historical significance. Importing such geo-referenced data into simple global information system grids along with scanned in base maps allows indigenous communities to own and control the content of maps without compromising on technical quality. Community experiences with these techniques have proved their value not just for validating indigenous knowledge and securing indigenous rights but also as mechanisms for overcoming inter-ethnic rivalry, promoting intergenerational transmission of customary law (and lore) and promoting land-use planning.

Choice of the techniques has varied depending mainly on national laws and political contexts as well as the degree of autonomy sought by the mappers. In some countries, such as Peru and the Philippines, independent surveys, verified by government surveyors, are accepted as a basis for land claims and the registration of land titles. In other places, like Guyana and Sarawak, Governments have refused to survey indigenous lands, leaving the communities no choice but to carry out independent surveys themselves. Such maps have proved crucial in the subsequent assertion of land claims through the courts or, where government agencies have proved open to discussion, have provided a sound basis for the renegotiation of indigenous land claims, as in South Africa.

Although some Governments have proved hostile to these initiatives, even going so far in the case of Sarawak to make such mapping illegal, in general there has been a widespread appreciation that "social mapping" techniques provide an important means by which indigenous people can enter into dialogue with decision makers and land use planners on a more equal basis.

Source: Forest Peoples Programme (www.forestpeoples.org).

III. Indigenous peoples and water

Box 4
Indigenous Peoples Kyoto Water Declaration, March 2003

We, the indigenous peoples from all parts of the world assembled here, reaffirm our relationship to Mother Earth and responsibility to future generations to raise our voices in solidarity to speak for the protection of water. We were placed in a sacred manner on this earth, each in our own sacred and traditional lands and territories to care for all of creation and to care for water.

We recognize, honour and respect water as sacred and sustains all life. Our traditional knowledge, laws and ways of life teach us to be responsible in caring for this sacred gift that connects all life.

Our relationship with our lands, territories and water is the fundamental physical cultural and spiritual basis for our existence. This relationship to our Mother Earth requires us to conserve our freshwaters and oceans for the survival of present and future generations. We assert our role as caretakers with rights and responsibilities to defend and ensure the protection, availability and purity of water. We stand united to follow and implement our knowledge and traditional laws and exercise our right of self-determination to preserve water, and to preserve life.

23. Related to human settlement, water is a critical source of life. In many indigenous societies, their relationship to the life-giving qualities of water permeates their culture and spiritual values. Indigenous peoples' systems of water management and use are based on principles and practices that balance immediate needs with the needs of the environment and other living things, plants and animals, as well as other people, and the sustainability of future generations. Indigenous peoples have an important role in sustainable water resource management and their cultures and knowledge are an integral part of humanity's heritage and cultural diversity. In this context, due respect must be given to indigenous peoples' rights.

Water in crisis

24. Indigenous peoples from every region of the world are concerned that the ecosystems, including water systems, of the world have been compounding in change and are in crisis. Waters continue to be polluted with chemicals, pesticides, sewage, disease, radioactive contamination and ocean dumping, from mining to shipping wastes. Underlying the water crisis is a governance crisis and a cultural crisis. Indigenous traditional knowledge developed over the millennia is undermined by an overreliance on relatively recent and narrowly defined Western scientific methods, standards and technologies. Indigenous peoples support the implementation of strong measures to allow the full contribution by indigenous peoples to share their experiences, knowledge and concerns.

25. An ethical framework based on respect for life-giving water and its cultural manifestations is of critical importance for water policy and use. When water is disrespected, misused and poorly managed, indigenous peoples see the life-threatening impacts on all of creation, all populations and human settlements. Indigenous peoples' rights to self-determination and sovereignty, the application of traditional knowledge and cultural practices to protect the water are being disregarded, violated and disrespected. Already there are eruptions of serious disputes within and among States and indigenous peoples and local communities over water.

26. Throughout indigenous territories worldwide, indigenous peoples are experiencing increasing scarcity of freshwaters and the lack of access by indigenous communities and other life forms such as the land, forests, animals, birds, plants, marine life and air have to waters, including oceans. In these times of scarcity, Governments are creating commercial interests in water that lead to inequities in distribution and prevent access to the life-giving nature of water.

Mining and water

27. Global industrial expansion, in particular of the mining industry, has accelerated the contamination of groundwater and the environment with heavy metals, persistent organic pollutants and acids. In the north-eastern United States, in the state of Oklahoma, six indigenous tribes, the Quapaw, Eastern Shawnee, Seneca-Cayuga, Wyandotte, Ottawa and Peoria, have seen their once flourishing Tar Creek Watershed devastated by the acid mine drainage that flows murky orange from the Pitcher Mining Field.

28. The mineral extraction industry has left many indigenous communities with contamination and depletion of important water resources, along with ecological landscapes destroyed, family systems disrupted and the loss of food systems and the loss of sacred and culturally important land. An example of this is a mining company that is the largest coal producer in the world operating a coal mine on Navajo (Dineh) indigenous land in the United States that uses a slurry line that withdraws over 4,000 acre-feet, or 1.3 billion gallons, of water per year from the aquifer to fuel its slurry operation. The pipeline consumes an average of 120,000 gallons of water per hour and 43,000 tons of coal per day. As a result, the aquifer wells have decreased by more than 100 feet in some aquifer wells and discharge has dropped by more than 50 per cent in the majority of monitored local aquifer springs. This is especially devastating considering that the area recently experienced a seven-year drought.

29. The Ogallala aquifer in the United States, which underlies parts of eight states, South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico and Texas, is being overpumped throughout the entire area. One third of its volume is being siphoned off for irrigated agriculture. Water is being extracted from the Ogallala between 8 and 40 times faster than the natural rate of recharge. Over 40 indigenous tribes in this area are affected. In this vast dry region, wildlife is dependent on the Ogallala's groundwater, since it helps recharge surface water. Studies have found that 21 of 50 species of fish have disappeared, largely because of depletion of the Ogallala led to the desiccation of rivers and streams dependent on the aquifer for replenishing base flow.

Energy and water

30. Global warming and climate change pose significant threats to indigenous and local communities from the Arctic, Latin America, Africa, Asia and South-East Asia, the Pacific islands, North America and every region of the world. Climate change, if not halted, will result in increased frequency and severity of storms, floods, droughts and water shortage. Globally, climate change is worsening desertification. It is polluting and drying up the subterranean and water sources, and is causing the extinction of precious flora and fauna.

31. The communities most vulnerable to climate change are indigenous peoples and impoverished local communities, occupying marginal rural and urban environments. Small island communities are threatened with becoming submerged by rising oceans. Many countries in Africa have been suffering from unprecedented droughts.

32. For the Inuit, Inupiat, Yupik, Athabascan and other indigenous tribes of Alaska and northern Canada, climate change poses an immediate danger to the continuation of their way of life. The Inuit and other indigenous tribes of the polar regions are watching their world melt before their eyes. Glaciers are receding, the ice is thinning, coastlines are eroding, and permafrost is melting, which has destroyed the foundations of houses, eroded the seashore, disrupted traditional subsistence activities and forced communities to move inland. Climate change is happening now and these communities and nations are already bearing the brunt. Without snow and ice their way of life and culture will disappear.

33. Recent years have seen severe drought conditions in the regions of the United States, Mexico and Central America. Conflicts surrounding access to existing sources of limited water supplies have been amplified owing to drought conditions. This has resulted in indigenous peoples being forced to defend their access to and customary uses of water, or else abandoning their homelands and subsistence agricultural economies for work in cities. In times of scarcity, we see Governments and private corporations creating commercial interests in water that lead to inequities in water distribution, with resulting devastating impacts on traditional farming and other local food systems.

Dams and indigenous peoples

34. Indigenous peoples and local communities have suffered disproportionately from the impacts of large dams. In India, 40 per cent of all those who have been displaced by dams are the Adivasis who represent less than 6 per cent of the Indian population. Almost all the large dams built and proposed in the Philippines are on ancestral lands of the country's 5 million indigenous peoples. In Canada, the Lake Winnipeg Churchill-Nelson River Hydroelectric Project in northern Manitoba and the James Bay Quebec Hydroelectric Project in Quebec are the two largest and most complicated dam projects ever undertaken in Canada. These projects have adversely affected vast areas of environmentally fragile boreal forest environments, animal habitat and Cree peoples' land, as a result of river diversion, flooding, seasonal inversion of flows, shoreline erosion and destruction of access and devastation to the indigenous trap-line culture.

Box 5
Dams and indigenous peoples

The recent push for water and energy projects through the building of more large dams continues to threaten the security of many indigenous communities, even while many others are demanding reparations for past wrongs.

Indigenous participants at the workshop confirmed that large dams have disproportionately impacted indigenous peoples and future dam building also targets their lands disproportionately. New dams affecting indigenous peoples are being built in Botswana, north-east India, Honduras, Mexico, the Philippines, the Mekong basin, Malaysia and many others. Major impacts include: loss of land and livelihood; the undermining of the fabric of their societies; cultural loss; fragmentation of political institutions; breakdown of identity and human rights abuse. In many countries, militarization has accompanied dam-building.

Dam planning and projects are characterized by serious procedural failures, including:

- Failure to identify the distinctive characteristics of indigenous peoples in project planning;
- Failure to recognize customary rights and territories;
- Inadequate or absent environmental and social impact assessments;
- Inadequate compensation, ill-planned resettlement and tardy and inadequate reparations;
- Weak participatory mechanisms, no negotiation and prior and informed consent;
- Social exclusion and prevalent discrimination in national societies, including lack of citizenship rights.

The widespread adoption of neo-liberal economic policies is further weakening national protection of indigenous peoples' rights and creating legislative conflicts. Regional economic plans like Plan Puebla Panama and regional trade agreements promote regional energy grids and further dam-building. Under these conditions, there is weakening accountability of dam builders, operators, contractors, consultants and funders to the affected peoples. This tendency is likely to be exacerbated by moves to increasingly privatize the dam-building industry. These policies are fuelling conflicts in many countries, and indigenous peoples have mobilized in popular uprisings against State policies, including land and water privatization.

Source: Second International Meeting of Dam-Affected Peoples, Thailand, November 2003.

Water privatization

35. Water systems within the homelands of indigenous peoples are increasingly being governed by externally imposed management systems, as well as trade agreements and commercial practices that disconnect them as peoples from the ecosystem. Water is being treated as a commodity and as a property interest that can be bought, sold and traded in global and domestic market-based systems.

36. Commercialization and privatization of water contradicts indigenous perspectives that water is inseparable to land and people where it is found. Transporting, bottling and diverting water from its natural flow, appropriates inherent rights to access and benefits of water to private corporations at the expense of local and indigenous communities who are the primary users in its conservation and management.

37. Within the Andean region of Latin America, indigenous and local community water management systems constitute the basis of sustaining local livelihoods and assisting in the national food security. Indigenous and local communities are the main providers of food for the national populations. However, extremely unequal distribution and access to water and the rights of indigenous peoples to customary water rights in Latin American countries are under increasing pressure. Millions of indigenous water users are structurally among the poorest groups of society within the Andean region. They are not represented in national and international decision-making bodies, contributing to a situation of increasing inequality, poverty, conflict and ecological destruction.

38. Privatization of basic public services, such as water and energy, in several countries has spurred massive general strikes and protests such as those led by indigenous peoples in Bolivia, South America. The General Agreement on Trade in Services, whose coverage is being expanded to include environmental services of sanitation, nature and landscape protection, financial services, tourism, among others, provides the mechanism for the privatization of basic public services.

39. Increasing demographic pressure, migration and urban growth of rural areas are leading to profound changes in the agrarian structure, local cultures and forms of natural resource management. Newcomers enter the territories of local indigenous communities claiming a substantive share of existing water rights. Powerful stakeholders manage to influence new regulations and policies or monopolize water rights. Indigenous peoples within the Andean regions are witnessing a denial of contemporary forms of indigenous water management systems in addition to the denial by the Governments and non-indigenous peoples of inherent indigenous rights to land and water.

IV. Indigenous peoples and sanitation

40. Safe and adequate water supply, wastewater, sanitation and waste disposal systems are essential to the health of indigenous peoples.

41. Among many indigenous peoples worldwide, in both developing and developed countries, safe and adequate water supply and wastewater disposal facilities are lacking. An alarming number of indigenous peoples have unsafe drinking water, and the numbers are growing. There is a lack of community

infrastructure programmes to address the most immediate health threats, requiring the provision of clean water, basic sanitation facilities and safe housing. One out of eight indigenous communities in Canada are threatened by unsafe water, which each year kills indigenous newborn and elderly.

42. Safe and adequate water supply and wastewater disposal facilities are lacking in approximately 7.5 per cent of indigenous tribal homes in the United States, compared with 1 per cent of the homes for the United States general population. While 1 per cent of the general United States population lacks safe water and sewage systems, 7.5 per cent of Indian homes lack these systems. In some parts of indigenous lands in the United States, 36 per cent of Indian homes lack these systems. The basic sanitation needs in nearly half of Alaska's 192 Native villages have yet to be met. Some 89 of the 192 Alaska Native villages do not have water piped or trucked to their homes; rather, villagers must physically carry water from community watering points and spigots. As many as 20,000 of the 86,000 individual Alaska Native villagers depend on systems as inadequate as the so-called "honey bucket" or pail.

V. International water policy

43. Indigenous peoples have challenged the dominant paradigm, policies and programmes on water development, which includes, among others; government ownership of water, construction of large water infrastructures; the privatization and commodification of water; the use of water and the liberalization of trade in water services, which do not recognize the rights of indigenous peoples to water. They have also participated in a growing number of international activities on water which have significant relevance for indigenous peoples, and highlight the importance of water-related knowledge and values, and of recognizing indigenous peoples rights in decision-making on water and energy development.

44. Indigenous peoples of the world assembled at Kimberley, South Africa, for the Indigenous Peoples' International Summit on Sustainable Development from 19 to 23 August 2002, as a pre-summit to the World Summit on Sustainable Development. Some 300 indigenous representatives developed an Indigenous Peoples' Plan of Implementation on Sustainable Development and the Kimberley Declaration, which included water issues.

45. The Water and Cultural Diversity Thematic Statement of the Third World Water Forum brought attention to the significance of the cultural dimension of water that developed through the millennia by human societies and that constitutes a treasure of sustainable practices and innovative approaches.

46. The Thematic Statement recognized the importance for indigenous knowledge-holders to be full partners with scientists to find solutions to water-related problems.

47. The World Commission on Dams was another process in which dams-affected indigenous peoples brought their situation to the attention of the international community.

Box 6
World Commission on Dams: strategic priorities for decision-making

The World Commission on Dams, in its report entitled "Dams and Development: A New Framework for Decision-Making", highlighted the disproportionate impact of large dams on the lives and environments of indigenous peoples around the world. The report underlined respect for indigenous peoples in water and energy development.

Based on five core values of equity, efficiency, participatory decision-making, sustainability and accountability, the Commission developed a constructive and innovative way forward for decision-making in the form of seven strategic priorities and corresponding policy principles. These move from a traditional top-down, technology-focused approach to advocate significant innovations in assessing options, managing existing dams, gaining public acceptance and negotiating and sharing benefits.

Gaining public acceptance

Public acceptance of key decisions is essential for equitable and sustainable water and energy resources development. Acceptance emerges from recognizing rights, addressing risks, and safeguarding the entitlements of all groups of affected people, particularly indigenous and tribal peoples, women and other vulnerable groups. Decision-making processes and mechanisms that are used enable informed participation by all groups of people, and result in the demonstrable acceptance of key decisions. Where projects affect indigenous and tribal peoples, such processes are guided by their free, prior and informed consent.

By bringing to the table all those whose rights are involved and who bear the risks associated with different options for water and energy resources development, the conditions for a positive resolution of competing interests and conflicts are created. Negotiating outcomes will greatly improve the development effectiveness of water and energy projects by eliminating unfavourable projects at an early stage, and by offering as a choice only those options that key stakeholders agree represent the best ones to meet the needs in question. This will result in fundamental changes in the way decisions are made.

48. For indigenous peoples, the Commission's strategic priorities underline the need for decision-making processes on water and energy development based on negotiated agreements among all affected and interested parties, and which respect the fundamental rights of indigenous peoples, including free, prior and informed consent.

49. A fair, informed and transparent decision-making process, based on the acknowledgement and protection of existing rights and entitlements, will give all stakeholders the opportunity to fully and actively participate in the decision-making process. Failure to recognize the rights of all affected groups, whether legally

sanctioned or not, coupled with the significant involuntary risk imposed on the most vulnerable, is central to the dams debate and associated conflicts. The Commission was convinced that this represents the way forward to address the underlying conflicts in water rights and development.

50. The UNESCO Universal Declaration on Cultural Diversity (2001) and the Johannesburg Declaration on Sustainable Development (2002) urged dialogue and cooperation within human society and among cultures in order to wisely use and sustainably manage earth's resources, including freshwaters and oceans.

VI. Conclusions and recommendations

Indigenous self-determination and rights to water

51. Indigenous peoples have the right to self-determination. By virtue of that right indigenous peoples have the right to freely exercise full authority and control of their natural resources, including water. Such rights cover both water quantity and quality and extend to water as part of a healthy environment and to its cultural and spiritual values. Indigenous interests and rights must be respected by international agreements on trade and investment, and all plans for new water uses and allocations.

52. Indigenous peoples' interests with regard to water and customary uses must be recognized by Governments, ensuring that indigenous rights are enshrined in national legislation and policy.

53. Self-determination includes the practice of our cultural and spiritual relationships with water, and the exercise of authority to govern, use, manage, regulate, recover, conserve, enhance and renew their water sources, without interference.

54. The promotion of respect and observance of indigenous peoples' rights and fundamental freedoms, in particular the right of self-determination and the free use and control of their lands and territories, is necessary for the use and conservation of water and of water sources and resources.

55. International law recognizes the rights of indigenous peoples to the following:

(a) Self-determination;

(b) Ownership, control and management of their traditional territories, lands and natural resources;

(c) Exercise their customary law;

(d) Represent themselves through their own institutions;

(e) Require free prior and informed consent to developments on their land;

(f) Control and share in the benefits of the use of their traditional knowledge.

56. Governments should support the immediate adoption of the Draft Declaration on the Rights of Indigenous Peoples, which will help ensure the recognition and protection of indigenous peoples' rights.

Human rights to water

57. Governments must recognize and adopt policies of water as a human right that entitles everyone to safe, sufficient, affordable and physically accessible water for personal and domestic use.

58. States must comply with their human rights obligations and commitments to legally binding international instruments to which they are signatories, including but not limited to the Covenant on Civil and Political Rights, the Covenant on Economic, Cultural and Social Rights, the International Convention on the Elimination of All Forms of Racial Discrimination, as well as their obligations to conventions on the environment, such as the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa.

59. Human rights obligations of States must be complied with and respected by international trade organizations. These legally binding human rights and environmental obligations do not stop at the door of the World Trade Organization (WTO), the General Agreement on Trade in Services and other regional and bilateral trade agreements.

60. For indigenous peoples, the fundamental criteria they apply in assessing the progress made in these international agreements and in their implementation is important and dependent on whether or not their basic human rights are respected.

Participation, consultation and prior informed consent

61. Governments must ensure public participation in all aspects of water management and decision-making, particularly the participation of indigenous peoples when there are indigenous communities within water management areas. The participation of indigenous peoples will include men, women, youth and elders.

62. To recover and retain indigenous peoples' connection to their waters, they must have the right to make decisions about waters at all levels. Governments, corporations and intergovernmental organizations must, under international human rights standards, require indigenous peoples' free prior and informed consent and consultation by cultural appropriate means in all decision-making activities and all matters that may have effect, including partnerships. These consultations must be carried out with deep mutual respect, meaning there must be no fraud, manipulation, duress or guarantee that agreement will be reached on the specific project or measure.

Box 7

Article 7 (1) of ILO Convention 169 provides that:

"The people concerned shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development."

Building on these principles, article 30 of the Draft Declaration on the Rights of Indigenous Peoples acknowledges that:

"Indigenous Peoples have the right to determine and develop priorities and strategies for the development or use of their lands, territories and other resources, including the right to require the State to obtain their free and informed consent prior to the approval of any project affecting their lands, territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources. ..."

63. Base integrated water resources management strategies must include indigenous peoples and local community participation and provide adequate mechanisms for dialogue and conflict resolution within river basins and across national boundaries. Indigenous peoples are ready to work with Governments to set up these mechanisms and share indigenous knowledge.

64. Participatory decision-making in integrated water resources management should take into account all facets of cultural diversity, gender and age and seek informed consensus.

Box 8

Principles of consultations with indigenous peoples include:

- Consultations are conducted under the communities' own systems and mechanisms;
- Indigenous peoples have the means to participate fully in such consultations;
- Indigenous peoples are involved in both the local and traditional decision-making processes, including the direct participation of their spiritual and ceremonial authorities, individual members and community authorities as well as traditional practitioners of subsistence and cultural ways in the consultation process and the expression of consent for the particular project or measure;
- There is respect for the right to say no;
- Ethical guidelines exist for a transparent and specific outcome.

65. Governments and international agencies should recognize and support indigenous peoples' commitment to establish an indigenous working group to facilitate linkages between indigenous peoples and international organs to provide technical and legal assistance to indigenous peoples on water and water related issues.

66. Governments should recognize that within many indigenous cultures, women are the caretakers and users of traditional water resource systems, requiring the need for mainstreaming gender and indigenous peoples in integrated water resources management strategies and implementation.

67. Both indigenous peoples and gender analysis and indigenous peoples and gender sensitive indicators must be integrated in the implementation of the targets of the World Summit on Sustainable Development and the Millennium Development Goals. Measurements for the assessment of targets and goals are needed to sustain the positive impacts of gender mainstreaming for both indigenous women and men. Qualitative indicators are required to monitor the process and the impacts.

Human settlements

68. The transformation of human settlements in this century towards largely urban settlements must not undermine the importance of rural settlements, which are equally deserving of attention. An explicit goal for a programme of work on human settlements must be the promotion of balanced and equitable relationships between diverse urban and rural communities, and sustainable human settlements in relation to the Earth.

69. The development of action plans on human settlements and in the implementation of integrated land use planning and integrated resource base management strategies must be strengthened to provide security of tenure and legal protection of indigenous peoples' lands and territories. Legal protection for indigenous peoples' rights in the development process, including in the planning and implementation of accessible water, sanitation and other infrastructure projects for human settlements, is the outstanding obstacle that must be addressed.

70. Safeguards must be put in place to protect the less powerful and vulnerable communities whose well-being is closely linked to biodiversity and integrity with the natural world to address the over-exploitation of lands, unsustainable agricultural practices, waters, forests and other resources of indigenous peoples and rural communities, and from the harmful dumping and accumulation of wastes.

Water and sanitation

71. Regional and global goals must be developed for realistic local, national targets for improved sanitation and hygiene services, adopting community-based approaches and bearing in mind the human right to clean and safe water.

72. Developing and developed countries with indigenous tribal populations must develop and strengthen clear policies, targets and institutional frameworks to improve sanitation, assure safe and adequate water supply and access and hygiene services to indigenous peoples.

73. Water and sanitation must remain in the public sector and all Governments must commit to public sector delivery of water services. This includes ensuring that adequate financial resources are made available, and that adequate local capacity is built. In areas of indigenous communities, mechanisms for the option for indigenous peoples to control and manage their own water and sanitation systems must be provided.

Dams and water diversion

74. Governments, international financial institutions, bilateral donors and the private sector should cease promoting water mega-projects without reference to international agreements and must always incorporate the recommendations of the World Commission on Dams into water and energy planning processes, including reparations. These include the Commission's core values, strategic priorities, the "rights and risks framework" and the use of multi-criteria assessment tools for strategic options assessment and project selection. Its rights-based development framework, including the recognition of the rights of indigenous peoples in water development is a major contribution to decision-making frameworks for sustainable development.

Climate and water

75. Climate variability and weather extremes will derail achieving the 2015 Millennium Development Goals without considering climate change. It is imperative for States to fulfil the mandates of the United Nations Framework Convention on Climate Change and to ratify the Kyoto Protocol. Governments must end financial subsidies to fossil fuel production and processing and for aggressive reduction of greenhouse gas emissions, calling attention to the Intergovernmental Panel on Climate Change, which reported that an immediate 60 per cent reduction of carbon dioxide is needed to stabilize global warming.

76. Enhanced policies and measures are needed towards adaptation to the impacts of climate variability and change, along with more aggressive efforts on further reduction of greenhouse gas emissions.

77. Indigenous peoples- and community-level decision-making is important in all categories of action and measures coping with climate change, and how climate variability and change can be mainstreamed into local, national, regional and international water management policies and practices.

Ecological approach to water management and indigenous traditional ecological knowledge

78. Implementation should be carried out using an ecological approach that incorporates indigenous traditional ecological knowledge principles to water management. Both the ecological approach and traditional ecological knowledge integrates different perspectives into integrated management of land, forests, oceans, air, human settlements and water resources.

79. Understanding integrated water resources management inherently recognizes the ecosystems' approach to river and water basin management, including the function of ecosystems as the basis for livelihood of people and conservation of biological diversity.

80. Governments should widely implement the following measures of an ecological approach:

(a) Integrate indigenous traditional ecological knowledge principles of the sacred nature of water and the need to protect all water sources as sacred sites;

(b) Protect and restore ecosystems, springs, wetlands, freshwaters, lakes, water basins and aquifers vital for water resources;

(c) Leave enough water in rivers to maintain downstream benefits and in-stream flows;

(d) Develop action plans to implement the integrated river basin management initiative;

(e) Protect all oceans, coral reefs and coastal systems by the protection of sustainable management of fisheries and aquaculture;

(f) Protect mountains, forests, headwaters and rivers;

(g) Integrate wetland conservation and restoration in water resources and land use planning;

(h) Establish proper management regimes for critical aquatic biodiversity;

(i) Protect freshwater ecosystems and biodiversity with sustainable management of freshwater fisheries;

(j) Integrate the management of land, air and water resources, with special attention to environmental protection and resource conservation;

(k) Implement air shed and watershed pollution control, treatment and prevention programmes with financing and legal frameworks for implementation;

(l) The concept of environmental flow requirements needs to be further worked out and applied at the basin level to provide a basis for striking a balance between water for food and environmental security;

(m) Protect species, habitats and biodiversity;

(n) Within arctic regions, protect glaciers, snow and ice conditions that comprise the biological integrity of the arctic environment;

(o) Protect glaciers and snow coverings within mountain regions that comprise the biological integrity of the river systems and water basins.

Box 9
Traditional ecological knowledge

Indigenous peoples' traditional knowledge and practices are dynamically regulated systems. They are based on natural and spiritual laws, ensuring sustainable use through resource conservation. Traditional ecological knowledge is the accumulated knowledge and understanding of ones' place in relationship to the universe. This relationship extends to knowledge and practices that indigenous communities hold about the spiritual-cosmovision, bio-physical, socio-economic and cultural-historical aspects of their local environment. Traditional ecological knowledge builds upon the experience of earlier generations and allows for adaptation to appropriate technological and socio-economic changes of the present. Indigenous peoples' system of the millennia of water management and use is based on principles and practices that balance immediate needs with the needs of ecology, the environment and other living things, plants, fish and animals, as well as other people, and the sustainability of future generations. Traditional ecological knowledge encompasses spiritual relationships, relationships with the natural environment and the use of natural resources, relationships between humans, relationships with animals, birds, fish, forests, plants, water, oceans, and all elements, and is reflected in language, social organization, values, institutions and laws.

Source: Indigenous Environmental Network.

Privatization and commodification of water

81. Water and water services must be kept out of General Agreement on Trade in Services, WTO and other multilateral and regional trade agreements.

82. The World Bank, the International Monetary Fund, regional banks like the Asian Development Bank, the African Development Bank and the Inter-American Development Bank, should stop the imposition of water privatization or "full cost recovery" as a condition for new loans and renewal of loans of developing countries.

Government and corporate accountability

83. Political, technical and legal mechanisms on the domestic and international level should be developed so that the States, as well as transnational corporations and international financial institutions are held accountable for their actions or inactions that threaten the integrity of water, land, air, biodiversity and indigenous peoples and local communities.

Governance

84. Developing countries need to take primary responsibility for establishing good water governance and water management plans, and to ensure that water is integrated into national poverty reduction strategies. Good governance is essential to provide sustainable solutions to the water needs of indigenous peoples and poor people in developing countries.

85. Developed countries, with indigenous peoples, need to take primary responsibility for establishing good water governance and water management plans to indigenous communities and poor communities. Good governance is essential to provide sustainable solutions to the water needs of indigenous peoples and poor people in developed countries.

86. Governments must enhance the participation, cooperation and mutual partnership of indigenous peoples, in all aspects of agricultural water use, development and management; recognize indigenous knowledge on water management; increase access to water resources; and recognize indigenous peoples' interests on water use, allocation and customary uses.

Financing and investments

87. Indigenous interests and rights must be respected by international agreements on trade and investment, and all plans for new water uses and allocations.

88. Governments must recognize the importance of providing support to small-scale local investments, by local authorities, indigenous communities and with the support of non-governmental organizations. Regulations of multilateral financing agencies do not allow lending to local governments and indigenous communities therefore requiring mechanisms for direct support to local levels and indigenous communities.

89. International law should ensure that water is not used as a vehicle for oppression and should promote local, national and regional cooperation.

90. International and domestic systems of restoration, financing, investments and compensation should be established in partnership with indigenous peoples to restore the integrity of water and ecosystems.

Capacity-building and technology transfer

91. Capacity and technological transfer initiatives should recognize indigenous peoples' traditional practices, including traditional water management as dynamically regulated systems. They are based on natural and spiritual laws, ensuring sustainable use through traditional resource conservation. Capacity includes developing education programmes on indigenous traditional ecological knowledge of water and indigenous systems of water management.

92. Governments must recognize the need for utilizing technologies such as rainwater harvesting, drip irrigation, crop rotation and other indigenous knowledge and sustainable water conservation practices within current farming methods.

93. Environmentally sound technologies must be identified and adopted; economic incentives must be given for the use of pollution prevention and control systems. As a mechanism to protect the health of watersheds and groundwater systems, the establishment of wastewater disposal and treatment facilities must be given top priority for the minimization of waste generation and the constant recycling and reuse of wastewater.

94. Practical, efficient and low-cost technologies are important tools for providing clean drinking water and basic sanitation.

95. Capacity development is a main focus of water policies that needs to be amplified with more action and targets with particular emphasis on building capacities in indigenous communities and local communities and government agencies.

96. Cultural diversity and intercultural dialogue should be the guiding principles for the development of awareness raising, educational and capacity-building materials and methods.

97. Incorporate in scientific and professional conferences, sessions on the relevant indigenous and customary knowledge and practices.

98. Indigenous traditional knowledge developed over the millennia should not be compromised by an overreliance on relatively recent and narrowly defined Western reductionist scientific methods and standards. Indigenous peoples support the implementation of strong measures to allow the full and equal participation of indigenous peoples to share their experiences, knowledge and concerns.